

## CLASS 182, FIRE ESCAPE, LADDER, OR SCAFFOLD

### SECTION I - CLASS DEFINITION

This class includes (1) structures supported in spaced relation to the earth's surface for supporting a workman adjacent a structure being worked on, (2) means for climbing comprising a stile having steps or rungs, (3) means ancillary to normal egress means to traverse a vertical distance to facilitate quick escape from a structure in case of emergency not elsewhere provided for and (4) torso harness, for rescue or escape operations, with or without a tether anchored to the work or to a worker's support.

### SECTION II - REFERENCES TO OTHER CLASSES

#### SEE OR SEARCH CLASS:

- 14, Bridges, subclasses 69.5 through 72.5 for a gangway for supporting a person or material between ordinarily disassociated bases.
- 52, Static Structures (e.g., Buildings), appropriate subclass for a tower, mast or other structurally similar building structure including a building construction forming or combined with a stair or ladder, a helical stair or a stair with a riser. This class (182) takes a tower with a platform which supports a person.
- 104, Railways, appropriate subclasses for a track mounted vehicle of general utility.
- 105, Railway Rolling Stock, subclasses 437+ for vehicle steps with a gate, and subclasses 443+ for permanent vehicle steps requiring installation at the time the railway car is manufactured or requiring modification of the car, and for an auxiliary step in combination with and requiring specific coaction with said permanent steps or the side supports therefor, e.g., an extension or auxiliary step for a staircase on a railway car operated therefrom. Class 182 takes auxiliary steps external and independent of a railway car, and an auxiliary step simply supported by merely "a step".
- 108, Horizontally Supported Planar Surfaces, subclasses 144+ for a vertically adjustable horizontally supported planar surface, and subclasses 115+ for folding horizontally supported planar surface, especially subclasses 116+ for such surfaces which are vertically adjustable.
- 119, Animal Husbandry, subclasses 712+ and 856+ for body harness useful for both lower animals

and human beings. See the search notes thereunder.

- 137, Fluid Handling, subclass 342 for a workman's support ancillary to a fluid handling system.
- 169, Fire Extinguishers, subclass 24 for a pumping apparatus on a fire truck and subclass 25 for a portable discharge pipe with means for elevating and controlling a fire-hose nozzle. This class (182) takes similar structure wherein the truck supports a ladder in operative position or wherein the nozzle support is a ladder structure.
- 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, appropriate subclasses for personnel lift structure of general application. This class (182) takes the combination of a scaffold or ladder and such an elevator.
- 188, Brakes, subclass 65.1 for strand brakes of general utility.
- 198, Conveyors: Power-Driven, appropriate subclasses for a conveyor having general utility.
- 212, Traversing Hoists, subclasses 71+ and 312+ for traveling cranes of general application; and subclasses 223+ for a hoist having a horizontally swingable boom.
- 244, Aeronautics, subclass 147 for aircraft structure relating to passenger and cargo loading and discharge, and subclasses 138+ for a safety lowering device, especially subclasses 142+ for a parachute.
- 248, Supports, subclasses 210+ for a bracket peculiar to a ladder, subclasses 235+ for a scaffold type bracket, subclasses 317+ for a suspended support of general utility and subclasses 351+ for a wall-board prop.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 151+ for a cable drum of fire-escape type and subclasses 167+ for suspended cable drums of general utility.
- 280, Land Vehicles, subclass 4 for a vehicle with a ladder rack, subclasses 32.5+ for a vehicle having a workman's support adjacent the ground, and subclasses 163+ for steps requiring vehicle modification. This class (182) takes mere wheels on a ladder and takes a ladder mounted on a vehicle wherein the mounting supports the ladder in its operative position.
- 403, Joints and Connections, appropriate subclasses for joints of general utility and particularly subclass 49 for laterally related members connected by latch means.
- 414, Material or Article Handling, subclasses 10+ for a lifting device for use in fastening sheet

- material to an overhead member or surface; e.g., to a ceiling where there is manipulation of the sheet; subclass 560 for a traversing hoist with diverse material handling means; subclasses 685+ for a vertically and horizontally swinging load support of general application, and subclass 507 for a self-loading or unloading vehicle having a load handling means in the nature of a conveyor and provided with means for supporting a person in working relationship to the conveyor.
- 446, Amusement Devices: Toys, subclasses 49+ for a toy parachute.

### SUBCLASSES

- 1** This subclass is indented under the class definition. Device comprising steps pivoted with respect to horizontally pivoted ladder stile structure, the device being provided with means maintaining the step level during pivotal movement of the stile structure.
- 2.1 MEANS MAINTAINING PLATFORM LEVEL ON ANGULARLY MOVABLE SUPPORT:**  
This subclass is indented under the class definition. Device comprising a work station (e.g., bucket, cage, seat, etc.) intended to pivot about an axis generally parallel with the ground or support thereunder, with means to hold the work station in a level position regardless of the angle of inclination of the movable support relative to the ground.
- SEE OR SEARCH CLASS:**  
52, Static Structures (e.g., Buildings), subclasses 111+ for a mechanism operated or relatively movable shaft assembly; e.g., a tilting skeleton tower, per se.
- 2.11 Telescopic support:**  
This subclass is indented under subclass 2.3. Device comprising a linearly extensible and retractable boom which is relatively movable to increase or decrease its end-to-end length to raise or lower the work platform.

- 2.2 Adjustable to plural operating positions:**  
This subclass is indented under subclass 2.1. Device wherein the orientation of the platform is changeable from one orientation to another.

- 2.3 Swingable support:**  
This subclass is indented under subclass 2.1. Device comprising a boom section pivotally connected at its lower end to a supporting base for pivotal movement in a vertical plane.

### SEE OR SEARCH CLASS:

- 212, Traversing Hoists, subclasses 255+ for a traversing derrick having a vertically swinging hoist frame.
- 414, Material or Article Handling, subclasses 706+ for vertically swinging load supports of the tilting shovel or fork type having means to maintain the shovel or fork level during the swinging.

- 2.4 Of dielectric material:**  
This subclass is indented under subclass 2.3. Device comprising a structural component which is constructed of electrically nonconducting material (e.g., glass fiber, plastic, resin, etc.) to prevent short circuiting from the electrical wire to the ground.

- 2.5 Ladder associated:**  
This subclass is indented under subclass 2.3. Device wherein the boom section is provided with two long, structural members crossed by parallel rungs, used to climb or descend.

- 2.6 Providing access to underside of elevated surface:**  
This subclass is indented under subclass 2.3. Device comprising a supporting base located on top of an elevated structure (e.g., bridge, elevated roadway, etc.) with a first boom section extending downwardly and over the side of the elevated structure, and a second boom section attached to the end of the first swinging into a position so it extends back under the elevated structure whereby an individual located on the platform may obtain easy access to the structure's under surface.

- 2.7 Parallelogram linkage:**  
This subclass is indented under subclass 2.3. Device wherein the swingable support comprises a parallel motion linkage which has a pair of substantially parallel lifting arms.
- 2.8 Foldable hinged support:**  
This subclass is indented under subclass 2.3. Device wherein the swingable support comprises at least two boom sections which are pivotally interconnected and folded one on the other in their inoperative positions.
- 2.9 Hydraulically operated:**  
This subclass is indented under subclass 2.8. Device comprising a telescopic cylinder and piston rod form of hydraulic lift to pivot the boom section.
- 3** This subclass is indented under the class definition. Device with means closely encircling a person's torso like a harness.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
189, for a mere seat or foot loop on a strand type escape.
- SEE OR SEARCH CLASS:  
54, Harness, subclass 134 for body restraints.  
119, Animal Husbandry, subclasses 712+ for a harness for controlling or handling an animal, and subclasses 856+ for a body- or appendage-encircling collar or band.  
128, Surgery, subclass 134 for a body restraint.  
297, Chairs and Seats, subclasses 464+ and especially subclasses 468+ for flexible bands engaging the body of a seated person.
- 4** This subclass is indented under subclass 3. Device having anchoring means associated with a window.
- SEE OR SEARCH CLASS:  
24, Buckles, Buttons, Clasps, etc., particularly subclasses 455+ and 572+ for a clasp.
- 52, Static Structures (e.g., Buildings), subclass 37 for a safety belt hook attached at or near a window frame.
- 5** This subclass is indented under subclass 3. Device with means to control descent, along a strand, of a person supported by the encircling means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
72, for a supple escape having other means to support a person thereon with occupant of said means controlling a descent retarder.
- 6** This subclass is indented under subclass 5. Device including loop means for encircling a leg or foot of the person.
- 7** This subclass is indented under subclass 5. Device including means providing a seat for the supported person.
- 8** This subclass is indented under subclass 3. Device wherein there is provided means connecting the torso encircling means with a ladder.
- 9** This subclass is indented under subclass 3. Device wherein there is provided means for encircling or grasping a pole, tree or the like.
- 10** This subclass is indented under the class definition. Device comprising a personnel carrier, e.g., a seat, cage, platform, supported on an inclined cable for movement there along.
- 11** This subclass is indented under subclass 10. Device wherein the travel of the carrier along the cable is controlled by the occupant.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
5+, for torso harness with a descent retarder.
- 12** This subclass is indented under the class definition. Device for traversing the horizontal and with means actuating, controlling or responding to the horizontal traversing.

- SEE OR SEARCH CLASS:  
 280, Land Vehicles, subclass 32.5 for a vehicle carrying platform for a person engaged in work adjacent the ground.  
 414, Material or Article Handling, subclass 508 for a self-loading or unloading vehicle having a load handling means in the nature of a conveyor and provided with means for supporting a person in working relationship to the conveyor.
- 13** This subclass is indented under subclass 12. Device with occupant operated actuation or control means.
- SEE OR SEARCH CLASS:  
 280, Land Vehicles, subclass 1.11 for velocipede occupant propelled vehicles, and subclass 200 for other occupant propelled wheeled land vehicles.
- 14** This subclass is indented under subclass 13. Device further provided with occupant raising or lowering means, controlled by the occupant.
- 15** This subclass is indented under subclass 13. Device wherein the control means is a holding means, e.g., brake means.
- 16** This subclass is indented under subclass 12. Device with propelling handle means, or with steering means.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 13+, for occupant controlled steering devices.
- 17** This subclass is indented under subclass 12. Device with means to prevent traversing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 15, for holding means with occupant actuated or controlled means.
- SEE OR SEARCH CLASS:  
 188, Brakes, appropriate subclasses for brake means of general utility.
- 18** This subclass is indented under the class definition. Device combined with means to alert a person to a condition or to indicate a position or condition.
- SEE OR SEARCH CLASS:  
 116, Signals and Indicators, appropriate subclasses for a signal, alarm or indicator of more general utility. See the search notes in the class definition of Class 116.  
 340, Communications: Electrical, subclasses 541+ for electrical automatic intrusion responsive signal systems; subclasses 686.1+ for electrical automatic position responsive signal systems; and subclass 666 for electrical automatic weight responsive signal systems.
- 19** This subclass is indented under the class definition. Device including control means responsive to means sensing a condition.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 12+, for a device of this class with control means responsive to horizontal traversing.
- SEE OR SEARCH CLASS:  
 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclasses 276+ for control mechanisms for elevators of general application.
- 20** This subclass is indented under the class definition. Device which by reorientation or by rearrangement or omission or addition of a part, there is obtained a second character or different kind of device having a different mode of operation.
- 21** This subclass is indented under subclass 20. Device comprising a ladder.
- SEE OR SEARCH CLASS:  
 52, Static Structures (e.g., Buildings).
- 22** This subclass is indented under subclass 21. Device comprising a ladder which is transformed into a different type ladder, e.g., a step-ladder convertible to stacked ladders.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 163, for elongated ladders with folding components enabling them to be shortened and still usable.  
 178.1+, for ladders with stacking means.  
 207, for an extension ladder.
- 23** This subclass is indented under subclass 22. Device comprising a stepladder having a ladder section as a prop which section may be pivoted to an inverted position to extend the ladder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 104+, for pivotally connected ladders with a noninvertible feature.  
 115+, for a ladder with a platform with a noninvertible feature.  
 165+, for a ladder with a pivoted prop with a noninvertible feature.
- 24** This subclass is indented under subclass 23. Device wherein the ladder stile and prop are in end-to-end abutting position when the prop is used to extend the ladder.
- 25** This subclass is indented under subclass 23. Device wherein there is provided a spreader or tie between the ladder and the prop spaced from the pivot point thereof.
- SEE OR SEARCH CLASS:  
 217, Wooden Receptacles, subclasses 60+ for pivoted braces for wooden receptacles.
- 26** This subclass is indented under subclass 22. Device wherein one form of the ladder is a stepladder, in which the point of connection between the ladder and its prop is variable, thereby providing for its use on a planar surface or on multiple planes, e.g., a stairway.
- 27** This subclass is indented under subclass 21. Device comprising a ladder convertible to a scaffold structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 2.1+, for an angularly movable support with means to maintain a step level.  
 104, for pivotally connected ladders.
- 115+, for a ladder with a platform.  
 153+, for a unitary folding trestle.  
 163+, for a ladder with folding stiles.  
 165+, for a ladder with a pivoted prop.
- 28** This subclass is indented under subclass 21. Device comprising a ladder convertible to a table or to a support for a table surface.
- 29** This subclass is indented under subclass 28. Device in which the table comprises an ironing board.
- 30** This subclass is indented under subclass 29. Device wherein the ironing board converts to a pivoted prop for the ladder.
- 31** This subclass is indented under subclass 30. Device wherein the ironing board when functioning as such is supported by crossed-leg structure.
- 32** This subclass is indented under subclass 28. Device in which the table comprises a stand for the support of a wash basin.
- 33** This subclass is indented under subclass 21. Device comprising a ladder convertible to a support for a seated occupant.
- SEE OR SEARCH CLASS:  
 248, Supports, subclasses 127+ for a stool of general utility.  
 297, Chairs and Seats, appropriate subclasses, for a device restricted to a support for a seated person.
- 33.2** This subclass is indented under subclass 33. Device wherein the occupant supporting bottom and its associated leg structure is turned 180° end-for-end to uncover steps or rungs concealed or obstructed thereby or there beneath.
- SEE OR SEARCH CLASS:  
 297, Chairs and Seats, subclasses 1+ for a seating device invertible to uncover supports on the reverse side.
- 33.3** This subclass is indented under subclass 33. Device wherein the ladder rungs are mounted within or upon the back of the seating device, i.e., the back comprises the stiles or the stiles are mounted on the back.

- 33.4** This subclass is indented under subclass 33.3. Device wherein the rungs of the ladder are immovably held by their stiles and do not pivot with respect thereto.
- 33.5** This subclass is indented under subclass 33. Device wherein a step is movable from a non-use position under a support for a seated occupant to a use position outside of such support.
- 33.6** This subclass is indented under subclass 33.5. Device wherein the step moves as an entity in an arc a portion of a revolution about a horizontal axis in moving from the use to nonuse position.
- SEE OR SEARCH CLASS:  
297, Chairs and Seats, subclasses 423.26+ for a footrest pivoted to swing from a use to a nonuse position under a chair or seat.
- 34** This subclass is indented under subclass 21. Device convertible from a ladder to a bed.
- 35** This subclass is indented under subclass 20. Device convertible to an article of furniture.
- 36** This subclass is indented under the class definition. Device movably mounted by track supported means for horizontal traversing.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
10+, for a traveling personnel carrier on a stationary inclined cable.  
12+, for a ladder or platform including means for horizontal traversing with actuation control or response means.
- SEE OR SEARCH CLASS:  
212, Traversing Hoists, subclasses 312+ and 71+ for traveling cranes of general application.
- 37** This subclass is indented under subclass 36. Device provided with means for elevating or lowering the person occupying the device.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
141+, for a platform having elevating or lowering means.
- 150, for a suspended platform.
- 38** This subclass is indented under subclass 36. Device including vertically spaced tracks.
- 39** This subclass is indented under subclass 36. Device which also directly engage a floor or the ground when in use position.
- 40** This subclass is indented under the class definition. Device including a supple escape, e.g., a flexible ladder, and means on a common base therewith to upwardly extend and support said escape by rigid extensible support means or rigidifying and extending means.
- 41** This subclass is indented under subclass 40. Device including means to simultaneously rigidify and extend the supple escape means.
- 42** This subclass is indented under the class definition. Device comprising a personnel carrier mounted on endless conveyor means.
- SEE OR SEARCH CLASS:  
198, Conveyors: Power-Driven, appropriate subclass for endless conveyors of general utility.
- 43** This subclass is indented under subclass 42. Device in which the conveyor is provided with upper and lower supports in its endless path of travel.
- 44** This subclass is indented under subclass 43. Device in which the carrier pivots or folds.
- 45** This subclass is indented under the class definition. Device comprising a platform and means for supporting said platform on a pitched roof in a position of utility.
- SEE OR SEARCH CLASS:  
248, Supports, subclass 148 for a receptacle stand for a sloping surface, and subclass 237 for a scaffold support of general utility which compensates for roof pitch.
- 46** This subclass is indented under the class definition. Device with means to inhibit the transfer of wave energy, e.g., heat or electricity.

- SEE OR SEARCH CLASS:  
 52, Static Structures (e.g., Buildings), subclasses 404.1+ for a building component with an insulating insert in a cavity, and subclasses 408+ for a disparate material lamina separating building components.
- 47** This subclass is indented under subclass 46. Device including shield means to protect a person from fire or heat while using escape means.
- 48** This subclass is indented under the class definition. Device including a trough, tube or tower means with means utilizable only by a person or combined with means essential to maintaining life (e.g., ventilation means).
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 43+, for an escape chute or tower with an endless conveyor.
- SEE OR SEARCH CLASS:  
 193, Conveyors, Chutes, Skids, Guides, and Ways, subclasses 2+ for a mere chute.
- 49** This subclass is indented under subclass 48. Device wherein the means utilized by a person is a ladder.
- 50** This subclass is indented under the class definition. Device provided with a projector or projectile to assist in getting the device to its point of use.
- SEE OR SEARCH CLASS:  
 42, Firearms, appropriate subclasses for various firearms, per se.  
 43, Fishing, Trapping, and Vermin Destroying, subclass 19 for fishing rods with line propelling or trajecting means.  
 89, Ordnance, subclass 6.5 for fuse setters with projecting, launching or releasing devices.  
 102, Ammunition and Explosives, subclass 504 for a projectile with line carrying means.
- 51** This subclass is indented under the class definition. Device with fluid handling means.
- SEE OR SEARCH CLASS:  
 137, Fluid Handling, subclass 342 for a fluid system support for workman or nonsystem material.  
 169, Fire Extinguishers, subclass 25 for a portable fire fighting tower wherein a nozzle is controlled from the supporting base of the tower.
- 52** This subclass is indented under subclass 51. Device wherein a fluid conduit is a support member for a ladder, platform or escape.
- 53** This subclass is indented under the class definition. Device comprising a balcony-like platform detachably mounted in a window opening.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 4, for a window washer safety strip with a torso harness.
- SEE OR SEARCH CLASS:  
 52, Static Structures (e.g., Buildings), subclasses 73+ for a rigid cantilevered barrier, e.g., a balcony.  
 248, Supports, subclasses 235+ for shelf or scaffold type brackets, particularly subclass 236 for window mounted types.  
 297, Chairs and Seats, subclasses 234+ for an auxiliary seat supported from another seat, and subclasses 452.1+ for a seat provided with bracket support means.  
 312, Supports: Cabinet Structure, subclasses 101+, for a window mounted cabinet.
- 54** This subclass is indented under subclass 53. Device with a step, rung or additional platform.
- 124,** Mechanical Guns and Projectors, appropriate subclass for the projection of missiles through the air by mechanical means.
- 273,** Amusement Devices: Games, subclasses 317+ for aerial projectile types of amusement devices.

- 55** This subclass is indented under subclass 53. Device wherein the platform is disposed below the window.
- 56** This subclass is indented under subclass 53. Device wherein the platform is extensible.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
223, for a platform comprising relatively movable sections.
- 57** This subclass is indented under subclass 53. Device with support means engaging the wall surface of the common wall opposite that on which the platform is mounted.
- 58** This subclass is indented under subclass 57. Device with depending means inwardly of the window which engages the framing or wall surface below said window opening.
- 59** This subclass is indented under subclass 58. Device with depending support means outwardly of the window opening which engages the framing or wall surface.
- 60** This subclass is indented under subclass 59. Device with means to clamp it to one the walls.
- 61** This subclass is indented under subclass 59. Device with a diagonal strut or brace outwardly of the window or window opening to maintain the platform horizontal.
- 62** This subclass is indented under subclass 57. Device with a diagonal strut or brace outwardly of the window opening to maintain the platform horizontal.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
61, for a window saddle and a diagonal strut.
- 62.5** This subclass is indented under the class definition. Structure having means to extend a sub-structure for a platform in a vertical direction and means mounted for movement outwardly of the platform, e.g., forming a bridge or cantilevered ladder.
- 63.1 HAVING TRANSPOSITIONING BASE AND ERECTING MEANS:**  
This subclass is indented under the class definition. Device provided with a mobile base (e.g., a vehicle) to transport the device from a first position to a second position and with means to lower portions thereof for transportation and to raise the portions back to an elevated position after transportation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
2.1, for an extensible boom with means to maintain a platform level.  
12+, for a fire escape, ladder, or scaffold with means actuating, controlling, or responsive to horizontal traversing.  
40+, for an upwardly extensible, flexible ladder or escape.  
50, for an escape with a projector or projectile.
- 64.1 Ladder pivotably mounted on transpositioning base (e.g., on vehicle):**  
This subclass is indented under subclass 63.1. Device comprising a ladder mounted to turn about an axis on the mobile base for swinging movement in a vertical or horizontal plane.
- 65.1 About vertical axis:**  
This subclass is indented under subclass 64.1. Device wherein the supporting base (e.g., turntable) rotates about a vertical axis with respect to its movable support means (e.g., vehicle).
- 66.1 Extension ladder (i.e., ladder having sliding section):**  
This subclass is indented under subclass 65.1. Device comprising a plurality of coextensive, elongated ladder units, one of which is designed to be moved along its longitudinal axis relative to the other.
- 66.2 Motor operated:**  
This subclass is indented under subclass 66.1. Device provided with a prime mover for extending the ladder section.
- 67.1 Manually operated:**  
This subclass is indented under subclass 66.1. Device wherein the ladder is extended by hand.



**67.2 By use of screw:**

This subclass is indented under subclass 67.1. Device wherein the ladder is extended by manually rotating a threaded shaft within a threaded sleeve.

**67.3 By use of gear:**

This subclass is indented under subclass 67.1. Device wherein the ladder is extended by manually rotating a toothed wheel in meshing engagement with another toothed wheel or with a toothed segment.

**67.4 Folding ladder:**

This subclass is indented under subclass 65.1. Device comprising a ladder of multiple coextensive sections pivotally connected together so that they can be brought from an extended to a folded position.

**67.5 Having screw rod for erecting ladder about horizontal pivot:**

This subclass is indented under subclass 65.1. Device comprising a ladder elevating mechanism actuated by a rotary motion of a threaded rod within a threaded sleeve.

**68.1 Extension ladder pivotally mounted to be erected about a horizontal axis:**

This subclass is indented under subclass 64.1. Device comprising a plurality of coextensive, elongated ladder units designed to be moved along their longitudinal axis relative to one another wherein the ladder is mounted for movement about a horizontal axis.

**68.2 Having winch means for erecting ladder:**

This subclass is indented under subclass 68.1. Device wherein the pivotal motion of the extension ladder on the horizontal axis is actuated by a line means wound upon a winding drum.

**68.3 Having gear means for erecting ladder:**

This subclass is indented under subclass 68.1. Device wherein the pivotal motion of the extension ladder on the horizontal axis is actuated by the meshing engagement between a toothed wheel and another toothed wheel or a toothed segment.

**69.1 Having lazy tong extending means:**

This subclass is indented under subclass 68.1. Device wherein the ladder is extended by a scissors structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

208, for mechanical or power extending means for an extension ladder, generally.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclass 521 for lazy tong mechanism, generally.

**69.2 And winch to actuate lazy tong:**

This subclass is indented under subclass 69.1. Device wherein movement of the scissors structure is effected by a line means (e.g., rope, cable, etc.) wound upon a winding drum.

**69.3 And gear to actuate lazy tong:**

This subclass is indented under subclass 69.1. Device wherein movement of the scissors structure is effected by the meshing engagement between a toothed wheel and another toothed wheel or toothed segment.

**69.4 Telescopic erecting means:**

This subclass is indented under subclass 63.1. Device wherein the means to raise or lower the work platform comprises concentric, tubular sections disposed in sliding relationship with one another.

**69.5 Erecting means actuated by lazy tong:**

This subclass is indented under subclass 63.1. Device wherein the means to raise or lower the work platform comprises a vertically extensible or retractable scissors structure interposed between the supporting base and the work platform.

**69.6 And platform elevatable relative to its support:**

This subclass is indented under subclass 63.1. Device combined with a work platform movable up and down along a vertical support.

(1) Note. The work platform of this subclass may be moved manually or by a power operated means.

- 70** This subclass is indented under the class definition. Device comprising storage means for and combined with a flexible escape made of supple material.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
10+, for a personnel carrier supported by and moving with respect to an inclined cable.
- SEE OR SEARCH CLASS:  
188, Brakes, subclasses 65.1+ for a strand brake.  
254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 151+ for a fire escape cable drum.
- 71** This subclass is indented under subclass 70. Device comprising an escape in which the device descends under the influence of the weight of an occupant.
- 72** This subclass is indented under subclass 70. Device with an occupant controlled descent retarding device.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
5+, for a strand retarder combined with a torso harness.  
193, for a carrier on a strand having an occupant actuated brake.
- 73** This subclass is indented under subclass 70. Device wherein the storage means comprises a reel upon which the flexible escape is wound.
- 74** This subclass is indented under subclass 73. Devices provided with release means actuable to permit a ladder-type escape to unwind from the reel.
- 75** This subclass is indented under subclass 74. Device in which the reel is provided with a brake or regulator means to retard the unwinding of the escape therefrom.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
5, for a retarder of similar nature combined with a torso harness.
- SEE OR SEARCH CLASS:  
188, Brakes, subclasses 290+ for a fluid-resistance brake retarding the rotation of an unwinding escape reel.
- 76** This subclass is indented under subclass 70. Device in which the storage means is embedded in a wall.
- 77** This subclass is indented under the class definition. Device wherein a ladder is associated with a door.
- 78** This subclass is indented under subclass 77. Device wherein the ladder and door are so related that movement of the latter causes movement of the ladder.
- 79** This subclass is indented under subclass 78. Device comprising a rigid ladder provided with a guide means.
- 80** This subclass is indented under subclass 79. Device in which a guide is mounted on or near the door frame.
- 81** This subclass is indented under subclass 78. Device wherein the door and ladder are movably mounted on opposite sides of a common supporting wall (e.g., ceiling).
- 82** This subclass is indented under the class definition. Device permanently associated with a structural ceiling, wall, or floor for supporting said device relative thereto.
- SEE OR SEARCH CLASS:  
137, Fluid Handling, subclass 342 for a workman's support combined with a fluid handling system.
- 83** This subclass is indented under subclass 82. Device wherein a combined ladder and platform, e.g., balcony, are attached to a wall.
- 84** This subclass is indented under subclass 83. Device wherein both the platform and the ladder are mounted for movement with respect to the wall.
- 85** This subclass is indented under subclass 83. Device wherein the ladder is mounted for movement.

- 86** This subclass is indented under subclass 85. Device wherein the ladder is pivotally mounted.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
2.5, for a pivoted ladder having steps which are maintained level.
- 87** This subclass is indented under subclass 82. Device in which a portion of a scaffold support means is secured within the structure comprising a wall.
- 88** This subclass is indented under subclass 82. Device which are retractable or collapsible beneath the floor support on track means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
79+, for a guided rigid ladder operated by associated door means.
- 89** This subclass is indented under subclass 82. Device wherein a pivoted ladder or step is biased in or out of use position by spring means.
- 90** This subclass is indented under subclass 82. Device comprising a separate and distinct rung or step enabling a person to climb from one level to another.
- SEE OR SEARCH CLASS:  
211, Supports: Racks, subclass 123 for a horizontally mounted rod-type support of general utility.
- 91** This subclass is indented under subclass 90. Device which is pivotally mounted.
- SEE OR SEARCH CLASS:  
105, Railway Rolling Stock, subclasses 443+ for a permanent step pivotally secured to a railway vehicle.  
280, Land Vehicles, subclass 166 for a step-requiring vehicle modification mounted on a land vehicle with means permitting the step to be moved into various positions.
- 92** This subclass is indented under subclass 90. Device wherein the step or rung is readily detachable from its supporting means without the use of tools.
- 93** This subclass is indented under subclass 82. Device comprising a ladder structure secured to a wall of a building, car, or other similar supporting structure.
- 94** This subclass is indented under subclass 93. Device with which there is associated a wall penetrating actuating or operating means to effect the collapsing the ladder structure.
- 95** This subclass is indented under subclass 93. Device said ladder comprising rigid components mounted for hinged motion therebetween to permit folding.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
156+, for a unitary foldable rigid ladder.
- 96** This subclass is indented under subclass 95. Device comprising hinge means restricting folding by a stile moving through a plane passing through the major axes of the rungs or steps.
- 97** This subclass is indented under subclass 93. Device comprising a rigid ladder pivoted as a unit with respect to supporting structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
78+, for a pivoted ladder related to a door.  
86, for a pivoted ladder with a wall mounted platform.  
91, for an independent rung or step pivotally mounted.
- 98** This subclass is indented under subclass 97. Device in which the ladder is normally counter balanced to inoperative position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
85+, for a nonpivoted ladder which is counter balanced.

- 99** This subclass is indented under subclass 93. Device wherein the ladder structure has a portion extending over the roof or top of the supporting structure to which said ladder structure is secured.
- 100** This subclass is indented under subclass 82. Device wherein the device comprises a pole or single strand.
- 101** This subclass is indented under the class definition. Device including a ladder with a platform or escape mounted for vertical movement.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 37, for a traversing escape with elevating means.  
 42+, for an endless conveyor escape combined with a diverse escape.  
 85, for a ladder moving relative to a stationary platform which is structurally installed.  
 129, for fixed scaffold means with material hoisting means.
- 102** This subclass is indented under subclass 101. Device wherein the platform is movably supported by the ladder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 63.1+, for a platform movably supported by a ladder combined with erection and positioning means.
- SEE OR SEARCH CLASS:  
 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclass 241 for a nonself supporting portable elevator and subclass 402 for an elevator load support which carries a masonry hod.
- 103** This subclass is indented under subclass 102. Apparatus wherein a ladder stile or prop supports and guides carriage means mounting the platform or receptacle on the ladder.
- 104** This subclass is indented under the class definition. Device including pivotally connected ladders depending on each other for support in erected position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 22+, for a convertible ladder wherein a section may be pivoted from a ladder propping position to an inverted position.
- 105** This subclass is indented under subclass 104. Device wherein a central upright ladder section is supported between the pivotally connected sections.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 166+, for an extension ladder with pivoted props.
- 106** This subclass is indented under the class definition. Device comprising a ladder provided with an upright, alone or with a running structural member or rail, for the stabilization of a ladder occupant.
- SEE OR SEARCH CLASS:  
 256, Fences, subclasses 59+ for railings, per se.
- 107** This subclass is indented under the class definition. Device comprising a ladder with means to prevent slippage of said ladder when disposed in upright position.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 200+, for a ladder with means compensating for difference in level of a supporting surface.
- SEE OR SEARCH CLASS:  
 404, Road Structure, Process, or Apparatus, subclasses 19+ for a pavement with an anti-slip surface.
- 108** This subclass is indented under subclass 107. Device wherein an antislip foot or shoe is terminally connected to a ladder stile.
- SEE OR SEARCH CLASS:  
 16, Miscellaneous Hardware, subclasses 42+ for sliding feet or pads.  
 248, Supports, subclass 188.9 for a terminal tip or shoe for the extremity of a furniture leg.

- 109** This subclass is indented under subclass 108. Device comprising different kinds of antislip means, e.g., a pad and a spike.
- 110** This subclass is indented under subclass 108. Device including a suction cup.
- 111** This subclass is indented under subclass 108. Device including a component which is pivotable.
- 112** This subclass is indented under the class definition. Device comprising a platform with means to protect an occupant or the platform in event of structural failure or adverse conditions affecting stability.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 5+, for a torso harness combined with strand-engaging brake means.
- 70+, for a supple escape means combined with storage means.
- 141+, for a platform with elevating or lowering means which may have a brake.
- 113** This subclass is indented under subclass 112. Device provided with an occupant guard in the member mounting a running member or rail.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 53+, for a window seat type platform with guard rails.
- 106, for similar guards on a ladder.
- 114** This subclass is indented under the class definition. Device combined with a sucker rod support.
- SEE OR SEARCH CLASS:
- 211, Supports: Racks, subclass 70.4 for a slender article support, per se.
- 115** This subclass is indented under the class definition. Device comprising a scaffold structure in combination with a ladder.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 85+, for a wall mounted platform with a moving ladder.
- 101+, for a vertically movable platform combined with a ladder.
- 116** This subclass is indented under subclass 115. Device in which the ladder supports the platform.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 1, for an angularly movable ladder supporting a step or platform in a level condition throughout the ladder movement.
- SEE OR SEARCH CLASS:
- 248, Supports, subclass 238 for a scaffold jack, per se, and subclass 210 for a ladder bracket of general utility.
- 117** This subclass is indented under subclass 116. Device wherein the platform is supported on and between spaced ladders.
- 118** This subclass is indented under subclass 117. Device wherein the spaced ladders have the planes of their climbing faces normal to a common intersecting vertical plane.
- 119** This subclass is indented under subclass 118. Device wherein the platform may be detached from the ladders without requiring the use of tools.
- 120** This subclass is indented under subclass 116. Device in which a detachable step or platform is adapted to be supported by a single ladder.
- 121** This subclass is indented under subclass 120. Device in which the step or platform is attached to or engages a plurality of rungs of the ladder.
- 122** This subclass is indented under subclass 121. Device in which the step or platform also engages or is attached to a ladder stile.
- 123** This subclass is indented under subclass 116. Device in which there are a plurality of platforms.
- 124** This subclass is indented under subclass 116. Device in which the ladder is combined with a pivoted prop and a pivoted platform.

- 125** This subclass is indented under subclass 116. Device in which the platform is disposed into its operative position by relative movement of the ladder and prop.
- 126** This subclass is indented under subclass 116. Device in which the platform is pivoted to the ladder prop.
- 127** This subclass is indented under the class definition. Device comprising a ladder mounted on a distinct land vehicle.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 12+, for a similar device provided with actuation, control or response means relative to horizontal traversing thereof.
- 63.1+, for a similar device provided with erection and positioning means.
- 93+, for a ladder mounted on a floor or wall of a vehicle.
- SEE OR SEARCH CLASS:
- 169, Fire Extinguishers, subclass 24 for a fire engine, and subclass 25 for a water tower.
- 280, Land Vehicles, subclasses 32.5+ for a wheeled vehicle combined with a support for a person engaged in manual labor on or adjacent the ground and see the search notes thereunder, subclass 4 for a land vehicle with ladder and hose racks and brackets.
- 128** This subclass is indented under the class definition. Device including means supporting a scaffold within wall portions which define hollow shaft-like means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 53+, for a detachable window seat having opening confined securing means.
- 82+, for a wall mounted scaffold.
- SEE OR SEARCH CLASS:
- 211, Supports: Racks, subclass 123 for a horizontal rod type rack supported between spaced walls.
- 129** This subclass is indented under the class definition. Device comprising a device in addition to or combined with a workman's support, said device having another function or servicing to perfect the support for its intended purpose.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 206, for a ladder having hook or grab means.
- 214, for a ladder having means to space it from a supporting surface.
- 130** This subclass is indented under the class definition. Device comprising a plurality of workman's platforms on a common support.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 123, for a plural platform supported by a ladder.
- 131** This subclass is indented under subclass 130. Device in which at least one platform is movable with respect to another.
- 132** This subclass is indented under subclass 130. Device in which the platforms are vertically spaced and horizontally offset.
- 133** This subclass is indented under the class definition. Device comprising a support means mounted by gripping a substantially vertical pole or strand.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
- 189+, for a single pole or strand escape with means to retard descent.
- 134** This subclass is indented under subclass 133. Device to receive or be secured to a person's foot or leg during the operation of traversing a support.
- 135** This subclass is indented under subclass 134. Device with additional support for the occupant.
- 136** This subclass is indented under subclass 133. Device including vertically spaced alternately operable gripping means.

- 137** This subclass is indented under the class definition. Device particularly adapted for receiving and absorbing the impact of a human body upon falling through the air, and any device analogous in structure and function not otherwise provided for.
- SEE OR SEARCH CLASS:
- 5, Beds, subclasses 690+ for a mattress of similar construction.
  - 297, Chairs and Seats, subclasses 452.1+ for bottom and back supporting panels connected by tensioning means to a peripheral frame.
- 138** This subclass is indented under subclass 137. Device in which the receiving portion of the body catcher is of sheet or net form.
- SEE OR SEARCH CLASS:
- 5, Beds, subclass 111 for a cot of similar nature.
  - 428, Stock Material or Miscellaneous Articles, appropriate subclasses for a stock material product in the form of a single or plural layer web or sheet, of general utility.
- 139** This subclass is indented under subclass 138. Device wherein the sheet or net is tensioned peripherally.
- SEE OR SEARCH CLASS:
- 482, Exercise Devices, particularly subclasses 27+ for a body projecting trampoline having similar structure.
- 140** This subclass is indented under subclass 138. Device provided with a folding base support for the sheet or net.
- 141** This subclass is indented under the class definition. Device including means for elevating or lowering a platform.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 37, for a similar device mounted on a track for traversing movement.
  - 42+, for a platform mounted on an endless conveyor.
  - 101+, for an elevatable platform mounted on ladder means.
- 136, for alternate grasping structures adapted to climb a pole or strand.
- SEE OR SEARCH CLASS:
- 108, Horizontally Supported Planar Surfaces, subclass 149 for a suspended horizontally supported planar surface which is vertically adjustable.
  - 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, appropriate subclasses for a lift of general utility.
  - 254, Implements or Apparatus for Applying Pushing or Pulling Force, appropriate subclasses for means to merely jack and hold a wallboard in position.
  - 414, Material or Article Handling, subclasses 10+ for wallboard handling means which manipulate and hoist the board.
- 142** This subclass is indented under subclass 141. Device wherein the platform is supported from above.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 10+, for a suspended device traveling on an inclined cable.
  - 36+, for a suspended track mounted platform.
- SEE OR SEARCH CLASS:
- 248, Supports, subclasses 317+ for a suspended support of general utility.
  - 254, Implements or Apparatus for Applying Pushing or Pulling Force, appropriate subclass for a force multiplying device, per se, particularly subclasses 188+ for a block and tackle, per se.
- 143** This subclass is indented under subclass 142. Device including a plurality of suspension means at least two of which are simultaneously operable.
- 144** This subclass is indented under subclass 143. Device in which all the suspension means are simultaneously operable to maintain the platform level.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 2.1+, for a level platform supported on an angularly movable support.

- 145** This subclass is indented under subclass 142. Device including support means other than the work upon which a platform suspension means is mounted.
- 146** This subclass is indented under subclass 145. Device including detent means on the platform coacting with a support member to hold the platform fixed with respect to the separate support.
- 147** This subclass is indented under subclass 142. Device wherein the suspension device comprises plural distinct elevating means.
- 148** This subclass is indented under subclass 141. Device provided with means on the platform whereby a workman on the platform may operate or control the elevating structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
12+, for a device where horizontal movement of the platform is controlled by an operator on the platform.
- 149** This subclass is indented under subclass 141. Device wherein a trestle is provided with mechanical means for shifting component parts thereof to vary the height of its beam.
- 150** This subclass is indented under the class definition. Device comprising a platform hanging from a superior support.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
10+, for a suspended carrier traveling on an inclined cable.  
55, for a suspended window seat type support.  
142+, for a suspended device with elevating means.
- SEE OR SEARCH CLASS:  
248, Supports, subclasses 317+ for a suspended article support of more general utility.
- 151** This subclass is indented under the class definition. Device having parts shaped to be so disposed relative to each other as to comprise a package, one or more components providing a special receptacle for the remainder.
- 152** This subclass is indented under the class definition. Device comprising a unitary scaffold or ladder of rigid components which are hinged with respect to each other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
53+, for a folding window seat type platform.  
124, for a pivoted platform mounted on a ladder having a pivoted prop.  
151, for a package type trestle of separable parts.
- SEE OR SEARCH CLASS:  
108, Horizontally Supported Planar Surfaces, subclasses 115+ for a horizontally supported planar surface which is foldable.  
248, Supports, subclasses 166+ for a folding stand having plural legs.
- 153** This subclass is indented under subclass 152. Device wherein the device comprises a trestle which may be collapsed to facilitate its storage or transportation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
105, for a pivoted ladder having a control upright section supported therebetween.
- 154** This subclass is indented under subclass 153. Device supported by legs which cross each other.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
31, for a ladder convertible to an ironing board supported by crossed leg structure.
- SEE OR SEARCH CLASS:  
108, Horizontally Supported Planar Surfaces, subclasses 118+ for a folding horizontally supported planar surface in which mutually pivoted crossed legs support the surface.  
248, Supports, subclass 164 for crossed legs in a stand.



- 155** This subclass is indented under subclass 153. Device wherein the legs of the device fold substantially parallel to the beam of the trestle to form a package.
- 156** This subclass is indented under subclass 152. Device relatively movable stiles or rungs.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 1, for a pivoted step on an angularly movable support with means to keep the step horizontal.
  - 33+, for a unitary folding device wherein a ladder structure folds beneath a top step or seat to convert a step ladder to a stool.
  - 95+, for a unitary foldable ladder structurally installed.
  - 165+, for a rigid ladder having a pivoted prop.
- 157** This subclass is indented under subclass 156. Device comprising lazy tong construction.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 69.1+, for a lazy tong actuated extension ladder pivotally mounted on a moving base.
- 158** This subclass is indented under subclass 157. Device provided with mechanical or power means for extending the lazy tong structure.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 40+, for an upwardly extensible flexible ladder.
- 159** This subclass is indented under subclass 156. Device in which plural stiles, or plural elements of a single stile, move toward each other, with a rung or step pivoted thereto.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 96, for a similar type folding ladder structurally installed.
- 160** This subclass is indented under subclass 159. Device wherein the stiles construction forms a compartment or housing for storing the remainder of the ladder structure.
- 161** This subclass is indented under subclass 159. Device in which each stile is composed of plural parallel elements.
- 162** This subclass is indented under subclass 159. Device provided with a prop having relatively movable components.
- 163** This subclass is indented under subclass 156. Device wherein a stile is composed of rigid sections hinged together.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 22+, for a stepladder having pivoted sections whereby it may be adjusted lengthwise.
  - 24, for similar hinge structure between a ladder and a prop.
  - 40+, for a ladder having folding stiles with means to simultaneously unfold and extend the same upwardly.
  - 78+, for a folding stile ladder mounted on a door.
  - 104+, for pivotally connected separate ladder sections.
- 164** This subclass is indented under subclass 163. Device wherein the sections extend from rung to rung.
- 165** This subclass is indented under the class definition. Device comprising a ladder having a prop pivoted relative thereto.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
- 22+, for a stepladder convertible to an extension ladder.
  - 23, for a ladder with a prop which is inverted to make a stepladder an extension ladder.
  - 104+, for similar structure wherein the prop is a ladder.
  - 124+, for a pivoted platform mounted on a ladder having a pivoted prop.

- 156+, for a collapsible, unitary foldable ladder, especially subclass 162 for a collapsible prop.
- 166** This subclass is indented under subclass 165. Device including at least one section extensible below the prop pivot.
- 167** This subclass is indented under subclass 166. Device including means to hold steps of one section in registry with those of another section.
- 168** This subclass is indented under subclass 165. Device including coplanar extension sections with the prop pivoted to the lower section.
- 169** This subclass is indented under subclass 165. Device in which said prop is a rear prop comprising a single pole or rod.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
30, for a convertible ladder wherein the pivoted prop may be an ironing board.
- 170** This subclass is indented under subclass 165. Device in which the prop is a rear prop movable laterally with respect to the ladder.
- 171** This subclass is indented under subclass 165. Device in which either the stiles or the props converge and contact each other or are so intimately associated at their mutual ends as to be in virtual contact.
- 172** This subclass is indented under subclass 165. Device in which the prop extends laterally of the ladder.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
170, for a rear prop which is movable laterally.
- 173** This subclass is indented under subclass 165. Device in which there is provided a rear flange for the top step of the ladder, to which the prop is hinged.
- 174** This subclass is indented under subclass 165. Device wherein there is a cleat provided for the top step of the ladder, to which the prop is pivoted.
- 175** This subclass is indented under subclass 174. Device in which there is provided a spreader or tie between the stile and the prop, separate and distinct from the cleat structure and spaced therefrom.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
25, for a similar spreader on a convertible ladder.
- SEE OR SEARCH CLASS:  
30, Cutlery, for an ironing board forming a pivoted prop.
- 176** This subclass is indented under subclass 175. Device wherein the spreader is in two parts pivoted together so as to be folded about said pivot into substantial juxtaposition.
- SEE OR SEARCH CLASS:  
403, Joints and Connections, subclass 5 for articulated connections in general.
- 177** This subclass is indented under subclass 165. Device in which the prop and stile overlap.
- 178.1** **STACKABLE:**  
This subclass is indented under the class definition. Device including coupling means particularly adapted to allow a plurality of fire escapes, ladders, or scaffolds to be superimposed.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
207, for an extension ladder comprised of relatively movable lapped ladder sections.
- SEE OR SEARCH CLASS:  
52, Static Structures (e.g., Buildings), subclasses 637+ for superimposed three-dimensional, openwork units (e.g., towers of stacked skeletal units).
- 178.2** **Ladder section:**  
This subclass is indented under subclass 178.1. Device wherein each superimposed unit is a ladder section.

**178.3 Male and female connecting means:**

This subclass is indented under subclass 178.2. Device wherein the coupling means of one ladder section comprises a socket element designed to receive a cylindrical element of another ladder section.

**178.4 Overlapping sections:**

This subclass is indented under subclass 178.2. Device wherein the adjacent ladder sections are coupled together in longitudinally overlapping relation.

**178.5 Male and female connecting means:**

This subclass is indented under subclass 178.1. Device wherein the coupling means of a first, stackable member comprises a socket element designed to receive a cylindrical element of a second stackable member.

**178.6 Double-ended pin:**

This subclass is indented under subclass 178.5. Device wherein the cylindrical element includes an oppositely extending portion received by a socket element of the second stackable member.

**179.1 SELF-SUSTAINING:**

This subclass is indented under the class definition. Device adapted to rest upon the earth or other underlayment and to stand alone.

**SEE OR SEARCH CLASS:**

- 52, Static Structures (e.g., Buildings), subclasses 111+ for a mechanism operated or relatively movable shaft assembly, (e.g., a self-erecting skeletal tower), subclasses 637+ for superimposed three-dimensional openwork units, and subclass 651.10 for a three-dimensional, openwork structure.
- 248, Supports, for a self-sustaining support of general utility.

**180.1 Ladder:**

This subclass is indented under subclass 179.1. Device comprising a means for climbing which consists of two stiles crossed by parallel rungs.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 104, for pivotally connected ladders which depend on each other for support in erected position.
- 165+, for a ladder with a pivoted prop.
- 194+, for a ladder adapted to rest on the ground and to rest against the wall of a building.

**180.2 Having supporting base:**

This subclass is indented under subclass 180.1. Device wherein the ladder is mounted upon a supporting substructure.

**180.3 Vertically pivoted to supporting base:**

This subclass is indented under subclass 180.2. Device wherein the ladder is movable relative to the supporting base and rotates about a horizontal axis.

**181.1 Scaffold horse (e.g., trestle):**

This subclass is indented under subclass 179.1. Device comprising a horizontal beam and supporting legs therefor at one end thereof.

- (1) Note. Scaffold horse may be used with another to form a pair to support a work platform.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 117+, for a platform with a ladder support at each end, especially subclasses 118+ for facing ladders supporting the platform.
- 149, for a trestle with beam elevating means.
- 153+, for a unitary foldable trestle.

**SEE OR SEARCH CLASS:**

- 144, Woodworking, subclasses 286.1+ for a workbench of that class.

**182.1 Having height adjustable beam:**

This subclass is indented under subclass 181.1. Device including an adjustment means for setting the beam at different positions of use.

**SEE OR SEARCH THIS CLASS, SUB-CLASS:**

- 105, for pivoted ladders having a central upright supported therebetween.

- 151, for a knockdown scaffold kit.
- 182.2 By extensible leg brace:**  
This subclass is indented under subclass 182.1. Device wherein the height of the beam is adjusted by an adjustable length prop mounted between the horizontal beam and the supporting leg.
- 182.3 Step-by-step adjustment:**  
This subclass is indented under subclass 182.2. Device wherein the adjustment of the intermediate extensible shaft is incremental.
- 182.4 By slidable leg:**  
This subclass is indented under subclass 182.1. Device wherein the adjustment means comprises a sleeve having releasable means to permit selective positioning of the supporting leg relative to an associated pathway.
- 182.5 By extensible leg:**  
This subclass is indented under subclass 182.1. Device wherein one of the trestle legs is longitudinally adjustable.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
201+, for a ladder stile extension.
- SEE OR SEARCH CLASS:  
108, Horizontally Supported Planar Surfaces, subclasses 144.11+ for a horizontally supported planar surface which is vertically adjustable.  
248, Supports, subclass 157 for a vertically adjustable stand.
- 183.1 Having longitudinally extensible beam:**  
This subclass is indented under subclass 181.1. Device wherein the beam is comprised of a plurality of horizontal beam sections slidably connected for extension or contraction.
- 185.1 Having unitary leg to beam coupler and brace:**  
This subclass is indented under subclass 181.1. Device, including a single member of unitary rigid construction, comprising a brace or bracket having sockets for reception of the legs and serving to maintain the legs in angular relationship.
- 186.1 Beam clamped by leg actuation:**  
This subclass is indented under subclass 181.1. Device wherein the horizontal beam is gripped by its supporting legs in reaction to pressure from the supporting floor surface.
- 186.2 Pivotaly connected legs:**  
This subclass is indented under subclass 186.1. Device wherein the gripping legs are connected to each other by a hinge joint and wherein gripping is actuated by relative rotation of the gripping legs about their hinge joint.
- 186.3 Having leg to beam attaching bracket:**  
This subclass is indented under subclass 181.1. Device comprising a member with one portion fixed to the horizontal beam and another portion secured to the upper end of its supporting leg.
- 186.4 Leg coupled directly to beam:**  
This subclass is indented under subclass 181.1. Device wherein the upper portion of the supporting leg comprises a means for engaging the horizontal beam (e.g., socket, channel, etc.).
- 186.5 Knockdown:**  
This subclass is indented under subclass 181.1. Device constructed to be (1) readily set up from unassembled parts, or (2) readily disjoined into unassembled parts.
- 186.6 Having height adjustable platform:**  
This subclass is indented under subclass 179.1. Device comprising a work platform extending between the supporting legs, and an adjustment means for operatively selecting the horizontal position of the work platform along the legs.
- 186.7 Connector for horizontal or diagonal brace:**  
This subclass is indented under subclass 179.1. Device comprising a connector (e.g., clamp, bracket, etc.) which permits an inclined prop to be attached to a supporting leg.
- 186.8 Releasable connector:**  
This subclass is indented under subclass 186.7. Device wherein the connecting means comprises a coupling which enables the parts to be readily set up or disjoined.

- (1) Note. The connector of this subclass may utilize a wedge, a pin, a peg, a socket, etc.
- 186.9 Having cantilevered auxiliary platform:**  
This subclass is indented under subclass 179.1. Device comprising a projecting frame extending laterally beyond the supporting structure to support a supplementary work platform.
- 187** This subclass is indented under the class definition. Device comprising a scaffold platform mounted on a single strand or pole, e.g., tree, chimney, silo, etc.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
128, for a scaffold supported internally of shaft means.
- SEE OR SEARCH CLASS:  
248, Supports, subclasses 218.4+ for a bracket specially mounted on a post.
- 188** This subclass is indented under subclass 187. Device in which the platform may be moved or adjusted to different horizontal positions relative to the pole, tree or the like.
- 189** This subclass is indented under the class definition. Device comprising a single strand or single rod-like means which serves as a ladder stile or a slide-pole escape.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
5+, for a safety girdle combined with a single pole or strand escape.  
42+, for an endless conveyor type escape.  
90, for a structurally installed independent rung or step.  
100, for a structurally installed single pole or strand.  
133+, for support means gripping a substantially vertical pole or strand.
- 190** This subclass is indented under subclass 189. Device comprising a flexible element.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
70+, for a supple escape with a storage device.
- 196+, for a flexible ladder.
- 191** This subclass is indented under subclass 190. Device comprising a carrier mounted for sliding movement along a strand or pole.
- 192** This subclass is indented under subclass 191. Device having a brake provided with a component movable by application of a load upon the carrier which movement results in a braking action as between the carrier and the strand or pole.
- 193** This subclass is indented under subclass 191. Device including a retarding or brake device adapted to be actuated by the user or occupant of the carrier.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
72, for an occupant controlled descent retarder combined with a supple escape and storage means therefor.
- 194** This subclass is indented under the class definition. Device composed of a stile having a plurality of rungs or steps mounted therebetween along the length thereof.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
189+, for a single stile ladder.
- SEE OR SEARCH CLASS:  
52, Static Structures (e.g., Buildings), subclasses 182+ for a stair with risers and specifically defined in situ erected type building structure with an attached stair or ladder.  
105, Railway Rolling Stock, subclasses 443+ for steps on railroad rolling stock involving modified vehicle structure.  
280, Land Vehicles, subclasses 163+ for steps on a land vehicle.
- 195** This subclass is indented under subclass 194. Device wherein the ladder stiles comprise nesting, relatively slidable segments, each supporting a single rung.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
166+, for slidable nesting ladder sections combined with a pivoted prop.
- 196** This subclass is indented under subclass 194. Device wherein the ladder stiles are supplied.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
40+, for means to extend a flexible ladder upwardly.  
42+, for an endless conveyor type flexible ladder.  
70+, for a flexible escape combined with a storage device.  
190+, for a flexible single stile ladder and escape.
- 197** This subclass is indented under subclass 196. Device provided with a spacer, usually to space the stiles from a building wall.
- 198** This subclass is indented under subclass 197. Device attached to a rung.
- 199** This subclass is indented under subclass 196. Device wherein the stile comprises a plurality of spaced flexible strands.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
215, for rungs sandwiched between elements of a composite stile.
- 200** This subclass is indented under subclass 194. Device comprising means to compensate for the inequalities of the surface, on which the ladder rests.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
170, for independent, laterally moving ladder props on an uneven surface.
- SEE OR SEARCH CLASS:  
108, Horizontally Supported Planar Surfaces, subclasses 144.11+ for a vertically adjustable horizontal planar surface.  
248, Supports, subclass 157 for a vertically adjustable stand, subclass 161 for a standard type stand wherein the standard is vertically adjustable, subclass 188.2 for a furniture elevating or leveling device, and subclasses 354+ for an adjustable length prop.
- 201** This subclass is indented under subclass 200. Device comprising a movable and adjustable stile extension.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
111, for extensible stiles combined with anti-slip means.  
166+, for units of a ladder or prop which are extensible.  
184, for a scaffold horse with extensible and adjustable legs.  
225+, for extensible legs on a trestle.
- 202** This subclass is indented under subclass 201. Device in which two of said stile extensions are provided and are interconnected together so that movement of one of the extensions will effect movement of the other extension in opposite direction.
- 203** This subclass is indented under subclass 201. Device wherein said stile extension includes means engaging a rung.
- 204** This subclass is indented under subclass 201. Device wherein the adjusting means comprises stepped adjustment means.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
166, for extension units employing similar step-adjustment means.
- 205** This subclass is indented under subclass 204. Device wherein the incremental adjustment is by means of a ratchet-like structure.
- 206** This subclass is indented under subclass 194. Device including means for supporting the ladder by hooking or grasping a supporting surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
150, for a suspended scaffold.  
196+, for a suspended flexible ladder.

- SEE OR SEARCH CLASS:  
 24, Buckles, Buttons, Clasps, etc., subclass 84 for a clasp-sliding jaw fastener, per se.  
 248, Supports, subclasses 683+ for article carried self-supporting means.
- 207** This subclass is indented under subclass 194. Device comprising lapping ladder sections relatively movable to provide for length adjustment.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 22+, for a stepladder convertible to an extension ladder.  
 40+, for an upwardly extensible flexible escape.  
 66.1+, for ladder sections on a rotatable transpositioning base.  
 68.1+, for reciprocating ladder sections combined with erection and transpositioning means.  
 166+, for a stepladder having extensible stiles or prop.  
 168, for an extension ladder with a pivoted prop.  
 195, for a ladder comprising slidable-nested single rung stile units.  
 201+, for supporting surface compensating means comprising an extensible stile.
- 208** This subclass is indented under subclass 207. Device including means providing a mechanical advantage or motor means connected between the sections to cause relative movement therebetween.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 12+, for an extension ladder mounted on a land vehicle having control or actuation means.  
 64.1+, for a ladder which has extension means combined with positioning means.  
 158, for a lazy tong type ladder with power or mechanical means to extend the same.
- 209** This subclass is indented under subclass 207. Device wherein a latch is provided between the sections to prevent their relative movement.
- 210** This subclass is indented under subclass 209. Device wherein the latch is actuated by movement of a ladder section.
- 211** This subclass is indented under subclass 210. Device wherein the latch is spring biased.
- 212** This subclass is indented under subclass 209. Device wherein the latch is operated by remote control.
- 213** This subclass is indented under subclass 212. Device wherein the remote control is operated by the extension ladder elevating cable.
- 214** This subclass is indented under subclass 194. Device including means to support the ladder away from the surface against which it leans or rests.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 197+, for a flexible ladder having a spacer.  
 229, for a spacer of more general utility.
- 215** This subclass is indented under subclass 194. Device wherein a side rail is composed of a plurality of elongated members and the rung or step is anchored therebetween.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 199, for a flexible ladder having a stile comprising plural strands.
- 216** This subclass is indented under subclass 194. Device wherein a tie rod is used to hold the side rails and rungs in assembled condition.
- 217** This subclass is indented under subclass 194. Device with means to reinforce a member of the ladder.
- 218** This subclass is indented under subclass 217. Device comprising a rod, cable or wire in the form of a bow string.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
 216, for a tie rod of a similar nature.
- 219** This subclass is indented under subclass 217. Device in which the side rails are reinforced.

- 220** This subclass is indented under subclass 194. Device including a distinct support element mounting a rung to a stile.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 159+, for a rung-stile connection in a collapsible ladder of rigid components.  
 228.1+, for a joint between a rung and stile.
- SEE OR SEARCH CLASS:  
 211, Supports: Racks, subclass 123 for a rod type rack.  
 248, Supports, subclasses 200+ especially subclasses 251+ for a rod bracket.  
 403, Joints and Connections, appropriate subclasses, for connections in general and particularly subclasses 230+ for a connection between the end of one rod and the side of another.
- 221** This subclass is indented under the class definition. Device adapted to be attached to a person's shoe or leg to assist him in climbing a pole.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 134+, for a grasping-type climber adapted to be secured to a person's foot or leg for ascending or descending a substantially vertical strand or pole.
- SEE OR SEARCH CLASS:  
 36, Boots, Shoes, and Leggings, subclasses 62+ for antislipping devices for use in walking, to be attached to the feet or shoes.
- 222** This subclass is indented under the class definition. Device comprising a surface element upon which a workman is supported.
- SEE OR SEARCH CLASS:  
 14, Bridges, subclasses 69.5+ for a ramp between disassociated bases.  
 52, Static Structures (e.g., Building), subclasses 177+ for a residual building structure with a wear resisting or friction increasing traffic carrying surface and subclasses 262+ for a barrier, e.g., ceiling floor or roof, resting on a vertical structure.
- 223** This subclass is indented under subclass 222. Device formed of sections with means to detachably connect them or permit relative movement.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 56, for a detachable window seat having an extensible platform.  
 131, for plural platforms, relatively movable.
- 224** This subclass is indented under the class definition. Device comprising a sawhorse beam and one set of legs or details of either the beam or set of legs.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 87, for a portion of the structure embedded in a wall.  
 153+, for a unitary foldable trestle.  
 181+, for a self-sustaining scaffold horse.
- SEE OR SEARCH CLASS:  
 52, Static Structures (e.g., Buildings), subclasses 677+ for means spacing and positioning an elongated reinforcing rod from a surface.  
 248, Supports, subclass 188 for leg attaching connections in a stand, and subclasses 188.1+ for supporting substructure for a stand.
- 225** This subclass is indented under subclass 224. Device wherein a joint provides for relative movement between two components.
- 226** This subclass is indented under subclass 225. Device wherein pivoting legs clamp the beam therebetween.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
 186.1, for a knockdown trestle having a beam clamped by leg actuation.
- 280,** Land Vehicles, subclasses 163+ for running-boards.
- 404,** Road Structure, Process, or Apparatus, subclasses 19+ for a pavement with an anti-slip surface.



- SEE OR SEARCH CLASS:  
24, Buckles, Buttons, Clasps, etc., subclasses 489+ for a pivoted clasp.
- 227** This subclass is indented under subclass 225. Device including a vertical staff like member between the beam and legs.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
149, for elevating means between a trestle beam and legs.  
181.1, for a trestle with adjustable means between the legs and beam.
- 228.1 RUNG OR RUNG-TO-STILE CONNECTION:**  
This subclass is indented under the class definition. Device comprising a step (or crosspiece) of a ladder intended to be engaged by a climber or comprising the structure interconnecting such a step or crosspiece to the two side rails of the ladder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
90+, for a wall attached rung or step.  
159+, for a collapsible ladder having a hinged rung-stile joint.  
174+, for cleat structure connecting the top step of a ladder to a stile or prop.  
187+, for a platform mounted externally of a shaft.  
189+, for a single stile ladder including a series of single steps or rungs.  
194+, for other ladder structure.  
196+, for a connection between a rung and a flexible stile.  
222+, for platform structure.
- SEE OR SEARCH CLASS:  
285, Pipe Joints or Couplings, for a pipe joint or coupling requiring internal wall structure of one of the members and having general utility.  
403, Joints and Connections, for joints in general and particularly subclasses 230+ for a connection between the end of one rod and the side of another.
- 228.2 Rung having anti-skid surface:**  
This subclass is indented under subclass 228.1. Device wherein the surface of the step structure intended to be engaged by a climber comprises a frictional means (e.g., nonslip projections, rough surface, etc.) to prevent a foot or hand of the climber from slipping.
- SEE OR SEARCH CLASS:  
52, Static Structures (e.g., Buildings), subclasses 177+ for a residual building component with a wear decreasing or friction increasing traffic carrying surface.
- 228.3 Bracket-type connection:**  
This subclass is indented under subclass 228.1. Device comprising an L-shaped member with one arm fixed to the side rail and the other arm projecting horizontally to support the end of the ladder step.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
220+, for a ladder including bracket mounted rungs.
- 228.4 Sleeve-type connection:**  
This subclass is indented under subclass 228.1. Device comprising a ferrule surrounding the end portion of the tubular ladder step for fastening the step and side rail together.
- 228.5 Rung for a motor vehicle:**  
This subclass is indented under subclass 228.1. Device comprising a step which is especially designed to use in getting in and out of a car, truck, tractor, etc.
- 228.6 Hollow rung:**  
This subclass is indented under subclass 228.1. Device wherein the ladder step is an elongated, tubular body member.
- 229** This subclass is indented under the class definition. Device comprising a horizontal supporting member, supported at one end by a scaffold post and at the other end by a wall, tree, etc.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:  
87, for a wall embedded scaffold member.

197+, for a flexible ladder with spacer means.

214, for a ladder with spacer means.

**SEE OR SEARCH CLASS:**

248, Supports, subclasses 218.4+ for a post or column attached bracket, subclasses 226.11+ for a bracket clamped to a support, and subclasses 351+ for a prop or brace, per se.

403, Joints and Connections, appropriate subclasses for joints in general and particularly subclasses 230+ for a connection between the end of one rod and the side of another.

**230** This subclass is indented under the class definition. Device comprising residual basic subject matter.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

129, for workmen's kneeling stool with means for holding tools or supplies.

**SEE OR SEARCH CLASS:**

248, Supports, subclasses 127+ for a kneeling stool used by a person other than a workman and subclasses 346.01+ for a base which is capable of use as a workman's support, e.g., kneeling base.

280, Land Vehicles, subclass 32.5 for vehicular support means for a person engaged in manual labor on or adjacent the ground, e.g., wheeled scrubbing stool.

294, Handling: Hand and Hoist-Line Implements, subclasses 67.1+ for hoist-line frames and subclasses 68.1+ for a hoistable container or cage. See the search notes thereunder.

**231 Attached to strand wound on reel, and means for retarding unwinding of strand:**

This subclass is indented under subclass 3. Device having a reel on which a strand for supporting the encircling means is wound, and means for slowing or stopping the unwinding of the strand from the reel during the lowering of the encircling means.

**SEE OR SEARCH CLASS:**

188, Brakes, subclass 64 for brakes which operate on a strand and a wheel or a pulley over which it runs, and subclasses 65.1+ for brakes which operate on a strand.

242, Winding, Tensioning, or Guiding, subclasses 285+, 381+, 396+, 410+, and 422+ for a reeling device with a particular brake.

**232 Including spring for rewinding strand:**

This subclass is indented under subclass 231. Device including a spring interacting with the reel to rewind the strand after the removal of the person from the encircling means.

**SEE OR SEARCH CLASS:**

242, Winding, Tensioning, or Guiding, subclasses 371+ for a spring retracted reeling device of general use.

**233 Fluid resistance brake:**

This subclass is indented under subclass 231. Device wherein the slowing or stopping means includes a brake which utilizes the force of a fluid against a portion of the brake structure.

**SEE OR SEARCH CLASS:**

187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclass 346 for a fluid governor carried upon an elevator car and driven by the movement of the car.

188, Brakes, subclasses 266+ for internal resistance motion retarders.

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 377 for a driven drum which pulls on a cable and includes a fluid-resistance brake for retarding the rotation of the drum.

**234 Movable, friction brake element applied by centrifugal force:**

This subclass is indented under subclass 231. Device wherein the slowing or stopping means includes a brake having at least one movable element which frictionally engages the reel or structure connected thereto and is actuated or applied by centrifugal force generated from the rotation of the reel.

## SEE OR SEARCH CLASS:

- 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclasses 373+ for an elevator car supported brake whose actuation is controlled by the speed of the car.
- 188, Brakes, subclasses 180+ for speed-responsive brakes.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 267 for a rotatably driven drum which pulls on a cable and includes a rotational speed governor for generating a control impulse to rotation retarding means or the drive.

**235 Friction brake and occupant mechanism for applying brake during descent:**

This subclass is indented under subclass 231. Device wherein the slowing or stopping means includes a brake having a portion which frictionally engages the reel, structure connected thereto, or the strand and is actuated or applied by the person supported by the encircling means during his downward movement.

**236 With means for retarding unwinding of strand type escape:**

This subclass is indented under subclass 73. Device in which the flexible escape is a movable strand which supports a person traveling therewith, and means for slowing or stopping the unwinding of the strand from the reel during the lowering of the person.

## SEE OR SEARCH CLASS:

- 188, Brakes, subclass 64 for brakes which operate on a strand and a wheel or pulley over which it runs, and subclasses 65.1+ for brakes which operate on a strand.

**237 Including spring for rewinding strand:**

This subclass is indented under subclass 236. Device including a spring interacting with the reel to rewind the strand after removal of the person traveling with the strand.

## SEE OR SEARCH CLASS:

- 242, Winding, Tensioning, or Guiding, subclasses 371+ for a spring retracted reeling device of general use.

**238 Fluid resistance brake:**

This subclass is indented under subclass 236. Device wherein slowing or stopping means includes a brake which utilizes the force of a fluid against a portion of the brake structure.

## SEE OR SEARCH CLASS:

- 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclass 346 for a fluid governor carried upon a car and driven by the movement of the car.
- 188, Brakes, subclasses 266+ for internal resistance motion retarders.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 377 for a driven drum which pulls on a cable and includes a fluid resistance brake for retarding the rotation of the drum.

**239 Movable, friction brake element applied by centrifugal force:**

This subclass is indented under subclass 236. Device wherein the slowing or stopping means includes a brake having at least one movable element which frictionally engages the reel or structure connected thereto and is actuated or applied by centrifugal force generated from the rotation of the reel.

## SEE OR SEARCH CLASS:

- 187, Elevator, Industrial Lift Truck, or Stationary Lift for Vehicle, subclasses 373+ for an elevator car supported brake whose actuation is controlled by the speed of the car.
- 188, Brakes, subclasses 180+ for speed-responsive brakes.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 267 for a rotatably driven drum which pulls on a cable and includes a rotational speed governor for generating a control impulse to rotation-retarding means or to the drive.

**240 Friction brake and occupant-operated mechanism for applying brake during descent:**

This subclass is indented under subclass 236. Device wherein the slowing or stopping means includes a brake having a portion which fric-

tionally engages the reel, structure connected thereto, or the strand and is actuated or applied by the person supported by the strand during his downward movement.

**241    MOVABLE STRAND ESCAPE AND MEANS FOR RETARDING TRAVEL OF STRAND:**

This subclass is indented under the class definition. Device comprising a flexible strand for supporting a person, the portion of the strand which supports the person traveling downwardly therewith, and provided with means for slowing or stopping its descent.

END